CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-12/523/CEMENT/2017-18 Date: 22.12.2017

TEST REPORT ON CEMENT

*** Customer**	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
*** Agency**	:	**Technical Manager (West),** KRIDL, Bangalore.
*** Name of Work**	:	Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
*** Reference**	:	BBMP/EE/DD/WO/141/2017-18 Dated: 21.12.2017
*** Sample ID**	:	Cement – Sample 1
Sample Received on	:	21.12.2017
Period of Testing	:	21.12.2017 to 22.12.2017

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988 (RA-2014)	29.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988 (RA-2014)	165 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988 (RA-2014)	480 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988 (RA-2014)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

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VIDYARANI P.K.
Technical Manager

AE-13

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಗೊ.ಪಿ. ಗನ್ನೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

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Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-12/523/SAND-Gradation/2017-18 22.12.2017

TEST REPORT ON SIEVE ANALYSIS OF FINE AGGREGATES

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/141/2017-18 Dated: 21.12.2017
* Sample ID	:	Fine Aggregates – Sample 1
Technical Reference	:	IS : 2386 (Part 1) - 1963 (RA-2011)
Sample Received On	:	21.12.2017
Date of Testing	:	22.12.2017

Total Wt. of Aggregates in gms = **1000**

IS Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2011)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	96.70	90-100	90-100	90-100	95-100
2.36	75.70	60-95	75-100	85-100	95-100
1.18	55.70	30-70	55-90	75-100	90-100
600 Micron	37.70	15-34	35-59	60-79	80-100
300 Micron	21.70	5-20	8-30	12-40	15-50
150 Micron	6.70	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-II specific limits.

Civil Tech Consultants & Engineers Bangalore

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ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

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Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-12/523/AGG/GR/2017-18 22.12.2017

TEST REPORT ON SIEVE ANALYSIS OF COARSE AGGREGATES

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/141/2017-18 Dated: 21.12.2017
* Sample ID	:	Coarse Aggregates (40mm) – Sample 1
Technical Reference	:	IS : 2386 (Part 1) -1963 (RA-2011)
Sample Received on	:	21.12.2017
Date of Testing	:	22.12.2017

Total Wt. of Aggregates in gms= **5000**

IS Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2011)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	98.20	95-100	85-100
20	46.40	30-70	0-20
10	23.28	10-35	0-5
4.75	3.28	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under graded specific limits.

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VIDYARANI P.K.
Technical Manager

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CIVIL-TECH CONSULTANTS AND ENGINEERS

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T-2377

Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-12/523/AGG/GR/2017-18 22.12.2017

TEST REPORT ON SIEVE ANALYSIS OF COARSE AGGREGATES

*** Customer**	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
*** Agency**	:	**Technical Manager (West),** KRIDL, Bangalore.
*** Name of Work**	:	Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
*** Reference**	:	BBMP/EE/DD/WO/141/2017-18 Dated: 21.12.2017
*** Sample ID**	:	Coarse Aggregates (20mm) – Sample 1
Technical Reference	:	IS : 2386 (Part 1) -1963(RA-2011)
Sample Received on	:	21.12.2017
Date of Testing	:	22.12.2017

Total Wt. of Aggregates in gms= **5000**

IS Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS :383-1970 (RA- 2011)	
		Graded	Single Sized
40	100	100	100
20	96.80	95-100	85-100
10	36.80	25-55	0-20
4.75	6.80	0-10	0-5

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits

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ಸ್ಥಳ, ರಾಜೀವ್ಗಾಂಧಿನಗರ, ಬೆಂಗಳೂರು

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T-2377

Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-12/523/Bricks/2017-18 25.12.2017

TEST REPORT ON WATER ABSORPTION OF BRICKS

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	:	Improvements UGD line in Ward No.13, Mallasandra, BBMP, Bangalore.
* Reference		BBMP/EE/DD/WO/141/2017-18 Dated: 21.12.2017
* Sample ID	:	Bricks
Technical Reference	:	IS: 3495(Part-2)- 1992 (RA-2011)
Sample Received on	:	21.12.2017
Date of Testing	:	25.12.2017

Sl.No	Size of Bricks in mm	Dry weight in gms	Wet weight in gms	Water Abosorption in %	Average Water Absorption in %	Allowable Water absorption as per IS: 1077:1995 Clause 7.2)
1	220x100x75	2962	3288	11.01	11.13	Not exceeding 20%
2	220x100x75	2960	3294	11.28		
3	220x100x75	2964	3299	11.30		
4	220x100x75	2965	3290	10.96		
5	220x100x75	2968	3298	11.12		

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VIDYARANI P.K.
Technical Manager